UNCLASSIFIED

THIS FIRST CORRECTION, ISSUED ON 24 MAY 13, SUPERCEDES THE ORIGINAL MESSAGE ISSUED UNDER MSG DTG 201700Z MAY 13. THE PURPOSE OF THIS CORRECTION IS TO CHANGE PARAGRAPH 7.1.2.3 FROM "TASK 2-6-9" TO READ "TASK 2-6-19".

MSG DTG 201700Z MAY 13

FROM COMMANDER, AMCOM, REDSTONE ARSENAL, AL //AMSAM-SFA//

SUBJECT - SAFETY OF FLIGHT (SOF), TECHNICAL, ALL OH-58D/F SERIES AIRCRAFT, 250-C30R/3 ENGINE NUMBER 2 BEARING, H-58-13-SOF-01

NOTE

This message is NOT for dissemination to any office or individual outside the US Government or US Government supporting agencies without the approval of the AMCOM Commander.

NOTE

This message is effective until rescinded or revised.

NOTE

This message is issued per AR 750-6 and has not been officially transmitted to units subordinate to addressees. Commanders of Army Commands (ACOM), Army National Guard (ARNG), Army Service Component Commands (ASCC), and Direct Reporting Units (DRU) will immediately retransmit this message to all subordinate units, activities or elements affected or concerned, and immediately confirm this re-transmittal by notification to the AMCOM SOF Compliance Officer at "safeadm@conus.army.mil".

NOTE

Commanders or directors (not lower than the grade of major general or civilian equivalent) of ACOMs, ARNG, ASCCs, and DRUs may authorize temporary exception from message requirements IAW AR 750-6, paragraphs 2-9 and 2-19. Exception may only occur when combat operations, matter of life or death in civil disasters, or other emergencies, are so urgent that they override the consequences of continued aircraft operation.

NOTE

Commanders unable to comply with the requirements of this message within the time frame specified will change the affected aircraft status symbol to a Red //X//.

NOTE

Commanders, facility managers, and contractors at all levels, to include aircraft in DD 250 status, will not issue aircraft until they are in compliance with this message. Aircraft transferred to the U.S. Government via DD Form 250 after the message DTG will be considered to be in compliance with the message requirements.

NOTE

A listing of published safety messages, to include TAMMS Reports, Inspection Reports, and any Supplements/Addendums required by this message can be downloaded at: "https://asmprd.redstone.army.mil".

1. SUMMARY -

1.1. Background - In 2010, Rolls-Royce redesigned the 250-C30R/3 number two engine bearing in response to catastrophic failures of the bearing which resulted in one (1) Class A and one (1) Class B accident. On 6 Jun 12, a catastrophic failure of an improved design number two engine bearing resulted in an in-flight engine failure. The initial indication of the in-flight failure was a "CHIPS ENG LOWER" message on the Multi-Function Display (MFD), followed by engine failure approximately two and one-half minutes later. The exact cause for this accident is still under investigation. Additionally, since installation of the improved bearings in the commercial (civilian) fleet, there have been reports of Metal in Oil (MIO) events attributed to spalling of the bearing. Investigation has isolated the MIO events and spalling to a single ball lot.

1.2. Message Purpose -

1.2.1. Implement an initial and recurring 20-hour chip detector inspection for all engines.

1.2.2. Commanders brief all aircrew members to reinforce emergency procedures for engine chip indications.

NOTE

This SOF message is applicable to the OH-58F model prototype currently in production test.

2. END ITEMS AFFECTED - All OH-58D/F series aircraft.

3. ASSEMBLIES/COMPONENTS/PARTS AFFECTED -

Nomenclature	PN	NSN
Engine, Aircraft Turbo-Shaft	23065550	2840-01-444-3770

4. INITIAL AIRCRAFT TAMMS (THE ARMY MAINTENANCE MANAGEMENT SYSTEM) ENTRY -

NOTE

When complying with the requirements of this message, complete forms and records entries IAW DA PAM 738-751. ULLS-A units will use appropriate "E" forms.

Upon receipt of this message, make the following entry on aircraft DA Form 2408-13-1. Enter a Red Horizontal Dash //-// status symbol with the following statement: "Comply with requirements of H-58-13-SOF-01 prior to the next flight but not to exceed 27 MAY 13.

5. COMPLIANCE REPORTING REQUIREMENTS -

NOTE

Report compliance with this message, as defined below, via the AMCOM Message Tracking System (AMTRACKS) at "https://amtracks.redstone.army.mil". Unit personnel designated to submit compliance reports, that have not registered with AMTRACKS, must establish a profile at this web site before submitting their compliance reports.

5.1. Aircraft Initial Compliance Report - All reporting requirements will be accomplished as part of the "Final Compliance Report".

5.2. Aircraft Final Compliance Report - Submit Final Compliance Reports via AMTRACKS by 30 MAY 13 per AR 750-6. This report will include the Aircraft SN, MDS, Date of Initial TAMMS Entry, and the following information:

Component PN (Engine)
Component SN
Component Hours
Component Time Since New
Component Time Since Overhaul (If the engine has not been overhauled enter "0000")
Inspection Results/Comments (enter "PASS" or "FAIL"), and check the box "Entered on DA Form 2408-5-1 (Engine)".

5.3. Retail Stock Task/Inspection Compliance Report (Installation level and below) - N/A.

5.4. Wholesale Stock Task/Inspection Compliance Report (including Depot Stock, Depot Maintenance, and Overhaul/Repair Facilities) - N/A.

6. SPECIAL PROVISIONS TO MESSAGE REQUIREMENTS (AIRCRAFT) -

NOTE

For the purposes of this message, aircraft away from home station is defined as aircraft which do not have access to a maintenance facility capable of meeting all message task/inspection requirements.

Aircraft in transit (surface/air shipment/ferry status/ aircraft away from home station) - Unit commanders unable to comply with the requirement specified in paragraph 4 may defer making the initial aircraft TAMMS entry until arrival at final destination. Adjust the TAMMS entry date to be no more than 7 days from the date of arrival.

7. TECHNICAL PROCEDURES/INSTRUCTIONS – Unless otherwise stated, all technical procedures/instructions shall be completed by the suspense date established in paragraph 4 of this message.

NOTE

Unless otherwise stated, all maintenance tasks will be performed per TM 1-2840-263-23.

NOTE

Requests for exceptions/deviations to this message will be submitted per AR 750-6. For assistance, contact the AMCOM Safety POC in paragraph 13.4.1.

7.1. Initial and recurring inspection procedures - Remove and inspect both upper and lower engine magnetic chip detectors per TM 1-2840-263-23, Chapter: 72-00-00, Engine Servicing, Section: Lubrication System Servicing Magnetic Plugs, Page 18, paragraph 8.E.
7.1.1. If any metal chips or flakes 1/32 inch (0.79mm) diameter or larger, or four (4) or more slivers of any size are found, the engine is unserviceable. Proceed to paragraph 7.2.
7.1.2. If metal chips are found that are 1/32 inch (0.79 mm) or less, perform the following.
7.1.2.1. Photograph the magnetic chip detector with chips present. Submit the photos to the Tech POC in paragraph 13.

Provide the chips to the Rolls Royce Field Service Representative (FSR) for disposition.
7.1.2.2. Complete the remainder of the magnetic chip detector inspection.
7.1.2.3. Perform operational checks of the engine chip detectors IAW TM 1-1520-248-T, **Task 2-6-19**, Step 14.
7.1.2.4. Proceed to paragraph 7.3.
7.1.3. If no metal chips are found, the inspection is complete. Reinstall chip detectors and proceed to paragraph 7.3.
7.2. Unserviceable engines -
7.2.1. Make the following entry on DA Form 2408-13-1. Enter a Red //X// status symbol with the following statement: "Engine unserviceable per H-58-13-SOF-01."
7.2.2. Dispose of the engine and submit a Product Quality Deficiency Report (PQDR) per paragraph 10.4.
7.3. Annotate the DA Form 2408-18 with a 20 hour recurring ENGINE CHIP DETECTORS INSPECTION: SYS Code "A"; Item Number "20"; Freq Type "H"; Freq "20"; Tolerance "10 Percent"; WUC "04A08E"; Ref "H-58-13-SOF-01"; Narrative "ENGINE CHIP DETECTORS INSPECTION"; EIC "ROC"; Oil Sample "N".
7.4. Clear the initial entry from paragraph 4 and note compliance on the commercial engine records.
7.5. Unit Commander Crew Brief -
7.5.1. Unit Commanders or their designated representatives shall reinforce the "LAND AS SOON AS POSSIBLE" emergency procedure to aircrew members for any "CHIPS ENG LOWER" or "CHIPS ENG UPPER" caution messages per TM 1-1520-248-10 .
7.5.2. Neither engine chip detector is wired for fuzz burning capability, so the crew should treat intermittent chip indications with the same diligence.
7.5.3. In previous Number 2 Engine Bearing mishap events, the engines only demonstrated power degradations a few minutes before the gas producer (NG) drooped severely and the Turbine Gas Temperature (TGT) rose abruptly actuating the "ENGINE OUT" and "TGT OVERTEMP" warning messages.
7.5.4. Once the engine degrades to this level, the aircraft is not capable of sustaining flight. The crew should immediately react with the "ENGINE FAILURE" emergency procedure per TM 1-1520-248-10: AUTOROTATE followed by EMER SHUTDOWN.

8. PROCEDURES/INSTRUCTIONS FOR ASSEMBLIES/COMPONENTS/PARTS IN WORK OR IN STOCK (AT ALL LEVELS INCLUDING WAR RESERVES) - N/A.

9. SPECIAL TOOLS AND FIXTURES REQUIRED - N/A.

10. SUPPLY/PARTS (REQUISITION/DISPOSITION) -

10.1. Parts Required -

Nomenclature	PN/NSN	Qty	Cost ea.	Total $
Engine, Aircraft Turbo-Shaft	23065550 2840-01-444-3770	1	$452,729.00	$452,729.00

Total cost per aircraft = $452,729.00

10.2. Bulk and Consumable Materials - N/A.

NOTE

Project Code "X91" (X-ray Nine One) is required to track and establish a data base of stock fund expenditures incurred by the field as a result of message actions.

10.3. Requisitioning Instructions - Requisition replacement parts using normal supply procedures. All requisitions shall use Project Code "X91".

NOTE

Enter H-58-13-SOF-01, 250-C30R/3 Engine Number 2 Bearing, and a brief description of the deficiency noted into Block 3b, Description, of the Product Quality Deficiency Report (PQDR).

10.4. Disposition of Discrepant Parts/Components - Submit a Category I Product Quality Deficiency Report (CAT I PQDR). Dispose of the engine through the FSR using normal turn-in procedures. All turn-in documents must include Project Code "X91".

10.5. Disposition of Hazardous Material - N/A.

11. MAINTENANCE APPLICATION -

11.1. Category of maintenance - Aviation Maintenance Company (AMC).

11.2. Estimated Time Required -

11.2.1. Time to complete the inspection - Total of 0.5 man-hours using 1 person.

NOTE

The time stated below does not include time for Maintenance Operational Checks or Test Flights.

11.2.2. Time for repair/replacement - Total of 8.0 man-hours using 4 persons.

12. PUBLICATION REQUIREMENTS -

12.1. References -
12.1.1. AR 750-6.
12.1.2. DA Pam 738-751.
12.1.3. TM 1-2840-263-23.
12.1.4. TM 1-1520-248-T.
12.1.5. TM 1-1520-248-10.
12.2. Publication Changes – N/A.

13. POINTS OF CONTACT -
13.1. Technical POCs -
13.1.1. Primary – Mr. Reginald Burton, DSN 897-9082 or 256-313-9082. Email: "reginald.t.burton@us.army.mil".
13.1.2. Alternate – Mr. Ross Armstrong, DSN 788-1281 or 256-842-1281. Email: "ross.h.armstrong.civ@mail.mil".
13.2. Project/Product Manager (PM) Office POCs -
13.2.1. Primary - Mr. Chuck Wright, DSN 645-7077 or 256-955-7077. Email: "charles.d.wright@us.army.mil".
13.2.2. Alternate - Mr. Jack McRoberts, DSN 645-8265 or 256-955-8265. Email: "ellis.mcroberts@us.army.mil".
13.2.3. Item Manager (Engine) - Ms. Linda King, DSN 897-1316 or 256-313-1316. Fax: DSN 897-1541 or 256-313-1541. Email is "linda.k.king6.civ@mail.mil".
13.3. Forms and Records POCs -
13.3.1. TAMMS - Mr. Dean Geiselhart, DSN 788-2971 or 256-842-2971. Email: "dean.d.geiselhart.civ@mail.mil" or "usarmy.redstone.usamc.mbx.immc-tamms-a-policy@mail.mil".
13.3.2. MCDS/LCF (Primary) - Mr. Jeff Sutherland, DSN 788-0860 or 256-842-0860. Email: "jeffrey.a.sutherland.civ@mail.mil".
13.3.3. MCDS/LCF (Alternate) - Mr. Lloyd Willits, DSN 746-3598 or 256-876-3598. Email: "lloyd.e.willits.civ@mail.mil".
13.4. AMCOM Safety POCs -
13.4.1. Safety (Primary) - Mr. William (Bill) Kennedy, DSN 788-8630 or 256-842-8630. Email: "william.l.kennedy4.civ@mail.mil".
13.4.2. Safety (Alternate) - Ms. Melissa Allen, DSN 746-7534 or 256-876-7534. Email: "melissa.n.allen6.civ@mail.mil".
13.4.3. AMTRACKS (Primary) - Mr. Vic Mosley, DSN 788-8620 or 256-842-8620. Email: "safeadm@conus.army.mil" or "victor.e.mosley.civ@mail.mil".
13.5.4. AMTRACKS (Alternate) - Ms. Teri Phipps, DSN 897-2097 or 256-313-2097. Email: "teri.l.phipps.civ@mail.mil".
13.5. After hours, contact the AMCOM Operations Center (AOC), DSN 897-2066/7 or 256-313-2066/7.